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| APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS |
| | CLASS | |

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ATGGGCGCCCGCGCCAGCATCCTGCGCGGCGGCAAGCTGGACGCCTGGGAGCGCATCCGCC
TGCGCCCGGCGGCAAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGCGAGCT
GGAGAAGTTCGCCCTGAACCCCGGCCTGCTGGAGACCAGCGAGGGCTGCAAGCAGATCATC
CGCCAGCTGCACCCCGCCCTGCAGACCGGCAGCGAGGAGCTGAAGAGCCTGTTCAACACCG
TGGCCACCCTGTACTGCGTGCACGAGAAGATCGAGGTCCGCGACACCAAGGAGGCCCTGGA
CAAGATCGAGGAGGAGCAGAACAAGTGCCAGCAGAAGATCCAGCAGGCCGAGGCCCGCCGAC
AAGGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATGGTGCACC
AGGCCATCAGCCCCCGCACCCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCCTTCAG
CCCCGAGGTGATCCCCATGTTTACCGCCCTGAGCGAGGGCGCCACCCCCCAGGACCTGAAC
ACGATGTTGAACACCGTGGGCGGCCACCAGGCCCGCCATGCAGATGCTGAAGGACACCATCA
ACGAGGAGGCCCGCGAGTGGGACCGCGTGCACCCCGTGCACGCCGGCCCCCATCGCCCCCGG
CCAGATGCGCGAGCCCCGCGGCAGCGACATCGCCGGCACCACCAGCACCTGCAGGAGCAG
ATCGCCTGGATGACCAGCAACCCCCCATCCCGTGGGCGACATCTACAAGCGGTGGATCA
TCCTGGGCCTGAACAAGATCGTGCAGATGTACAGCCCCGTGAGCATCCTGGACATCAAGCA
GGGCCCCAAGGAGCCCTTCGCGACTACGTGGACCGCTTCTTCAAGACCCTGCGCGCCGAG
CAGAGCACCAGGAGGTGAAGAACTGGATGACCGACACCCTGCTGGTGCAGAACGCCAACC
CCGACTGCAAGACCATCCTGCGCGCTCTCGGCCCCGCGCCAGCCTGGAGGAGATGATGAC
CGCCTGCCAGGGCGTGGGCGGCCCGAGCCACAAGGCCCGCGTGTGGCCGAGGCGATGAGC
CAGGCCAACACCAGCGTGATGATGCAGAAGAGCAACTTCAAGGGCCCCCGGCGCATCGTCA
AGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCCGCAACTGCCGCGCCCCCGCAAGAA
GGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCC
AACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGCCGCCCGGCAACTTCCTGCAGAGCC
GCCCCGAGCCCACCGCCCCCCCCCGCCGAGAGCTTCGCTTCGAGGAGACCACCCCCGGCCA
GAAGCAGGAGAGCAAGGACCGCGAGACCCTGACCAGCCTGAAGAGCCTGTTTCGGCAACGAC
CCCCTGAGCCAGTAA

FIG. 1



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| APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS |
| | CLASS | |

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ATGGGCGCCGCGCCAGCATCCTGCGCGGCGAGAAGCTGGACAAGTGGGAGAAGATCCGCC
TGCGCCCCGGCGGCAAGAAGCACTACATGCTGAAGCACCTGGTGTGGGCCAGCCGCGAGCT
GGAGGGCTTCGCCCTGAACCCCGGCCTGCTGGAGACCGCCGAGGGCTGCAAGCAGATCATG
AAGCAGCTGCAGCCCGCCCTGCAGACCGGCACCGAGGAGCTGCGCAGCCTGTACAACACCG
TGGCCACCCTGTACTGCGTGACGCGGCATCGAGGTCCGCGACACCAAGGAGGCCCTGGA
CAAGATCGAGGAGGAGCAGAACAAGTCCCAGCAGAAGACCCAGCAGGCCAAGGAGGCCGAC
GGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATGGTGCACCAGG
CCATCAGCCCCCGCACCCCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCCTTCAGCCC
CGAGGTGATCCCCATGTTACCCGCCCTGAGCGAGGGCGCCACCCCCAGGACCTGAACACG
ATGTTGAACACCGTGGGCGGCCACCAGGCCGCGCATGCAGATGCTGAAGGACACCATCAACG
AGGAGGCCGCGGAGTGGGACCGCCTGCACCCCGTGCAGGCCGCGCCCCGTGGCCCCCGGCCA
GATGCGCGACCCCCGCGGCAGCGACATCGCCGCGGCCACCAGCACCTGCAGGAGCAGATC
GCCTGGATGACCAGCAACCCCCCGTGCCCGTGGGCGACATCTACAAGCGGTGGATCATCC
TGGGCCTGAACAAGATCGTGCAGGATGTACAGCCCCGTGAGCATCCTGGACATCCGCCAGGG
CCCCAAGGAGCCCTTCGCGACTACGTGGACCGCTTCTTCAAGACCCTGCGCGCCGAGCAG
GCCACCCAGGACGTGAAGAACTGGATGACCGAGACCCTGCTGGTGCAGAACGCCAACCCCG
ACTGCAAGACCATCCTGCGCGCTCTCGGCCCCGGCGCCACCCTGGAGGAGATGATGACCGC
CTGCCAGGGCGTGGGCGGCCCCGGCCACAAGGCCCGCGTGCTGGCCGAGGCGATGAGCCAG
GCCAACAGCGTGAACATCATGATGCAGAAGAGCAACTTCAAGGGCCCCCGGCGCAACGTCA
AGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCAAGAACTGCCGCGCCCCCGCAAGAA
GGGCTGCTGGAAGTGGGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCC
AACTTCCTGGGCAAGATCTGGCCCAGCCACAAGGGCCGCCCCGGCAACTTCCTGCAGAAC
GCAGCGAGCCCGCGCCCCCACCCTGCCCACCGCCCCCCCCCGCCGAGAGCTTCGCTTCGA
GGAGACCACCCCGCCCCCAAGCAGGAGCCCAAGGACCGCGAGCCCTACCGCGAGCCCCCTG
ACCGCCCTGCGCAGCCTGTTCCGGCAGCGCCCCCTGAGCCAGTAA

FIG. 2



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--> signal peptide (1-81)
ATGCGCGTGATGGGCATCCTGAAGAACTACCAGCAGTGGTGGATGTGGGGCATCCTGGGCTTCTGGATGCTGATCA
TCAGCAGCGTGGTGGGCAACCTGTGGGTGACCGTGTACTACGGCGTGCCCGTGTGGAAGGAGGCCAAGACCACCCT
GTTCTGCACCAGCGACGCCAAGGCCTACGAGACCGAGGTGCACAACGTGTGGGCCACCCACGCCTGCGTGCCCAACC
GACCCCAACCCCCAGGAGATCGTGCTGGAGAACGTGACCGAGAAGTTCAACATGTGGAAGAAGACATGGTGGACC
AGATGCACGAGGACATCATCAGCCTGTGGGACCGAGCCTGAAGCCCTGCGTGAAGCTGACCCCCCTGTGCGTGAC
CCTGAAGTGCCGCAACGTGAACGCCACCAACAACATCAACAGCATGATCGACAACAGCAACAAGGGCGAGATGAAG
AACTGCAGCTTCAACGTGACCACCGAGCTGCGCGACCGCAAGCAGGAGGTGCACGCCCTGTTCTACCGCCTGGACG
TGGTGGCCCTGCAGGGCAACAACAGCAACGAGTACCGCCTGATCAACTGCAACACCAGCGCCATCACCAGGCCTG
CCCCAAGGTGAGCTTCGACCCCATCCCATCCACTACTGCACCCCGCCGGCTACGCCATCCTGAAGTGCAACAAC
CAGACCTTCAACGGCACCGGCCCCCTGCAACAACGTGAGCAGCGTGAGTGCAGTGCAGCCACGGCATCAAGCCCGTGGTGA
GCACCCAGCTGCTGCTGAACGGCAGCCTGGCCAAGGGCGAGATCATCATCCGAGCGAGAAGCTGGCCAACAACGC
CAAGATCATCATCGTGAGCTGAACAAGCCCGTGAAGATCGTGTGCGTGCAGCCCAACAACAACCCGCAAGAGC
GTGCGCATCGGCCCCGGCCAGACCTTCTACGCCACCGCGGAGATCATCGGCGACATCCGCCAGGCCTACTGCATCA
TCAACAAGACCGAGTGGAACAGCACCTGCAGGGCGTGAGCAAGAAGCTGGAGGAGCACTTCAGCAAGAAGGCCAT
CAAGTTCGAGCCCAGCAGCGGCGGACCTGGAGATCACCACCCACAGCTTCAACTGCCCGGGCGAGTTCTTCTAC
TGCGACACCAGCCAGCTGTTCAACAGCACCTACAGCCCCAGCTTCAACGGCACCGAGAACAAGCTGAACGGCACCA
TCACCATCACCTGCCGCATCAAGCAGATCATCAACATGTGGCAGAAGGTGGGCCGCGCCATGTACGCCCCCCCCAT
CGCCGGCAACCTGACCTGCGAGAGCAACATCACCGGCCTGCTGCTGACCCGCGACGGCGCAAGACCGGCCCCAAC
GACACCGAGATCTTCCGCCCGGGCGGCGGCGACATGCGCGACAAGTGGCGCAACGAGCTGTACAAGTACAAGGTGG
TGGAGATCAAGCCCTGGGCGTGGCCCCACCGAGGCCAAGCGCCGCGTGGTGGAGCGCGAGAAGCGCGCCGTGGG
CATCGGCGCCGTGTTCTCTGGGCTTCCTGGGCGCCCGGCGAGCACCATGGGCGCCGCGCAGCATCACCTGACCGTG
CAGGCCCCGCTGCTGCTGAGCGGCATCGTGACGAGCAGACAACCTGCTGCGCGCCATCGAGGCCCAGCAGCACC
TGCTGCAGCTGACCGTGTGGGGCATCAAGCAGCTGCAGACCCGCATCCTGGCCGTGGAGCGCTACCTGAAGGACCA
GCAGCTGCTGGGCATCTGGGGCTGCAGCGGCAAGCTGATCTGCACCACCGCCGTGCCCTGGAACAGCAGCTGGAGC
AACCGCAGCCACGACGAGATCTGGGACAACATGACCTGGATGCAGTGGGACCGCGAGATCAACAACCTACACCGACA
CCATCTACCGCCTGCTGGAGGAGAGCCAGAACCAGCAGGAGAAGAAGGACCTGCTGGCCCTGGACAGCTG
GCAGAACCTGTGGAAGTGGTTCAGCATCACCAACTGGCTGTGGTACATCAAGATCTTCATCATGATCGTGGGCGGC
CTGATCGGCCTGCGCATCATCTTCGCCGTGCTGAGCATCGTGAACCGCGTGCGCCAGGGCTACAGCCCCCTGCCCT
TCCAGACCTGACCCCCAACCCCCGCGAGCCCGACCGCCTGGGCCGCATCGAGGAGGAGGGCGGCGAGCAGGACCG
CGGCCGAGCATCCGCCCTGGTGAGCGGCTTCCTGGCCCTGGCCTGGGACGACCTGCGCAGCCTGTGCCTGTTACG
TACCACCGCCTGCGGACTTCATCCTGATCGCCGCCCGCTGCTGGAGCTGCTGGGCCAGCGCGGCTGGGAGGCC
TGAAGTACCTGGGCAGCCTGGTGCAGTACTGGGGCCTGGAGCTGAAGAAGAGCGCCATCAGCCTGCTGGACACCAT
CGCCATCGCCGTGGCCGAGGGCACCGACCGCATCATCGAGTTCATCCAGCGCATCTGCCGCGCCATCCGCAACATC
CCCCCGCATCCGCCAGGGCTTCGAGGCCCGCCCTGCAGTAA

FIG. 3

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| APPROVED BY | O.G. FIG. | SUBCLASS |
| | CLASS | DRAFTSMAN |



4/23

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--> signal peptide (1-72) \/-->
ATGCGCGTGCGCGGCATCCTGCGCAGCTGGCAGCAGTGGTGGATCTGGGGCATCCTGGGCTTCTGGATCTGCAGCG
gp120/140/160 (72)
GCCTGGGCAACCTGTGGGTGACCGTGTACGACGGCGTGCCCGTGTGGCGCGAGGCCAGCACCACCTGTTCTGCGC
CAGCGACGCCAAGGCTACGAGAAGGAGGTGCACAACGTGTGGGCCACCCACGCCTGCGTGCCACCGACCCCAAC
CCCCAGGAGATCGAGCTGGACAACGTGACCGAGAACTTCAACATGTGGAAGAACGACATGGTGGACCAGATGCACG
AGGACATCATCAGCCTGTGGGACCAGAGCCTGAAGCCCCGCGTGAAGCTGACCCCCCTGTGCGTGACCCCTGAAGTG
CACCAACTACAGCACCAACTACAGCAACACCATGAACGCCACCAGCTACAACAACAACACCACCGAGGAGATCAAG
AACTGCACCTTCAACATGACCACCGAGCTGCGCGACAAGAAGCAGCAGGTGTACGCCCTGTTCTACAAGCTGGACA
TCGTGCCCCCTGAACAGCAACAGCAGCGAGTACCGCCTGATCAACTGCAACACCAGCGCCATCACCCAGGCCTGCCC
CAAGGTGAGCTTCGACCCCATCCCCATCCACTACTGCGCCCCCGCCGGCTACGCCATCCTGAAGTGCAAGAACAAC
ACCAGCAACGGCACCGGCCCCCTGCCAGAACGTGAGCACCGTGCACTGCAACCCACGGCATCAAGCCCGTGGTGAGCA
CCCCCTGCTGCTGAACGGCAGCCTGGCCGAGGGCGGCGAGATCATCATCCGAGCAAGAACCTGAGCAACAACGC
CTACACCATCATCGTGCACCTGAACGACAGCGTGGAGATCGTGTGACCCGCCCCAACACAACACCCGCAAGGGC
ATCCGCATCGGCCCCGGCCAGACCTTCTACGCCACCGAGAATCATCATCGCGCAGATCCGCCAGGCCCACTGCAACA
TCAGCGCCGGCGAGTGGAACAAGGCCGTGCAGCGCGTGAGCGCAAGCTGCGCGAGCACTTCCCCAACAGACCAT
CGAGTTCCAGCCCAGCAGCGGCGGCGACCTGGAGATCACCACCCACAGCTTCAACTGCCGCGGCGAGTTCTTCTAC
TGCAACACCAGCAAGCTGTTCAACAGCAGCTACAACGGCACCAGCTACCGCGGCACCGAGAGCAACAGCAGCATCA
TCACCCTGCCCTGCCGCATCAAGCAGATCATCGACATGTGGCAGAAGGTGGGCCGCGCCATCTACGCCCCCCCCAT
CGAGGGCAACATCACCTGCAGCAGCAGCATCACCGGCCTGCTGCTGGCCCGCGACGGCGGCCTGGACAACATCACC
ACCGAGATCTTCCGCCCCCAGGGCGGCGACATGAAGGACAACCTGGCGCAACGAGCTGTACAAGTACAAGGTGGTGG
gp120 (1509) <--\/--> (1510) gp41
AGATCAAGCCCCCTGGGCGTGGCCCCCACCAGGCCAAGCGCCGCGTGGTGGAGCGCGAGAAGCGCGCCGTGGGCAT
CGGCGCCGTGATCTTCGGCTTCTGCGCGCCGCCGCGCAGCAACATGGGCGCCGCCAGCATCACCTGACCGCCAG
GCCCCGCGAGCTGCTGAGCGGCATCGTGCAGCAGCAGAGCAACCTGCTGCGCGCCATCGAGGCCAGCAGCATGC
TGCAGCTGACCGTGTGGGGCATCAAGCAGCTGCAGGCCCGCGTGTGGCCATCGAGCGCTACCTGAAGGACCAGCA
GCTGCTGGGCATCTGGGGCTGCAGCGGCAAGCTGATCTGCACCACCACCGTGGCCTGGAACAGCAGCTGGAGCAAC
AAGACCCAGGGCGAGATCTGGGAGAATGACCTGGATGCAGTGGGACAAGGAGATCAGCAACTACACCGGCATCA
TCTACCGCCTGCTGGAGGAGAGCCAGAACCAGCAGGAGCAGAACGAGAAGGACCTGCTGGCCCTGGACAGCCGCAA
CAACCTGTGGAGCTGGTTCAACATCAGCAACTGGCTGTGGTACATCAAGATCTTCATCATGATCGTGGGCGGCCTG
ATCGGCCTGCGCATCATCTTCGCGTGCTGAGCATCGTGAACCGCGTGCGCCAGGGCTACAGCCCCCTGAGCTTCC
AGACCTGACCCCCAACCCCGCGGCCTGGACCGCCTGGGCCGATCGAGGAGGAGGGCGGCGAGCAGGACCGCGA
CCGCAGCATCCGCTGGTGCAGGGCTTCTGGCCCTGGCCTGGGACGACCTGCGCAGCCTGTGCCTGTTACGCTAC
CACCGCCTGCGCAGCTGATCCTGGTGACCGCCCGCGTGGTGGAGCTGCTGGGCCGAGCAGCCCCCGCGGCCTGC
AGCGCGGCTGGGAGGCCCTGAAGTACCTGGGCAGCCTGGTGCAGTACTGGGGCTGGAGCTGAAGAAGAGCGCCAC
CAGCCTGCTGGACAGCATCGCCATCGCGTGGCCGAGGGCACCGCATCATCGAGGTGATCCAGCGCATCTAC
gp140 (2022) <--\/
CGCGCCTTCTGCAACATCCCCCGCGCGTGCGCCAGGGCTTCGAGGCCGCCCTGCAGTAA

FIG. 4

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| APPROVED | O.G. FIG. | |
| | CLASS | SUBCLASS |
| BY | DRAFTSMAN | |



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ATGGGCGCCCCGCGCCAGCATCCTGCGCGGCGGCAAGCTGGACGCCTGGGAGCGCATCCGCCTGCGCCCCGG
CGGCAAGAAGTGCTACATGATGAAGCACCTGGTGTGGGCCAGCCGCGAGCTGGAGAAGTTCGCCCTGAACC
CCGGCCTGCTGGAGACCAGCGAGGGCTGCAAGCAGATCATCCGCCAGCTGCACCCCGCCCTGCAGACCGGC
AGCGAGGAGCTGAAGAGCCTGTTCAACACCGTGGCCACCCTGTACTGCGTGCACGAGAAGATCGAGGTCCG
CGACACCAAGGAGGCCCTGGACAAGATCGAGGAGGAGCAGAACAGAGCCAGCAGAAGATCCAGCAGGCCG
AGGCCGCCGACAAGGGCAAGGTGAGCCAGAACTACCCATCGTGCAGAACCTGCAGGGCCAGATGGTGCAC
CAGGCCATCAGCCCCCGCACCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCCTTCAGCCCCGAGGT
GATCCCATGTTACCGCCCTGAGCGAGGGCGCCACCCCCCAGGACCTGAACACCATGCTGAACACCGTGG
GCGGCCACCAGGCCGCCATGCAGATGCTGAAGGACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCGTG
CACCCCGTGACGCCGGCCCCATCGCCCCCGGCCAGATGCGCGAGCCCCGCGGCAGCGACATCGCCGGCAC
CACCAGCACCTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCATCCCCGTGGGCGACATCTACA
AGCGCTGGATCATCCTGGGCCTGAACAAGATCGTGGCATGTACAGCCCCGTGAGCATCCTGGACATCAAG
CAGGGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACCTGCGCGCCGAGCAGAGCAC
CCAGGAGGTGAAGAACTGGATGACCGACACCTGCTGGTGCAGAACGCCAACCCCGACTGCAAGACCATCC
TGCGCGCCTGGCCCCGGCGCCAGCCTGGAGGAGATGATGACCGCCTGCCAGGGCGTGGGCGGCCCCAGC
CACAAAGGCCCGCTGCTGGCCGAGGCATGAGCCAGGCCAACACCAGCGTGATGATGCAGAAGAGCAACTT
CAAGGGCCCCCGCGCATCGTGAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCCGCAACTGCCGCG
CCCCCGCAAGAAGGGCTGCTGGAAGTGCGGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGCGCCAG
GCCAACTTCTGGGCAAGATCTGGCCCAGCCACAAGGGCCGCCCCGGCAACTTCTGCAGAGCCGCCCCGA
GCCACCGCCCCCCCCCGCCGAGAGCTTCCGCTTCGAGGAGACCACCCCGGCCAGAAGCAGGAGAGCAAGG
ACCGCGAGACCCTGACCAGCCTGAAGAGCCTGTTCCGGCAACGACCCCCTGAGCCAGTAA

FIG. 5

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| APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS |
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ATGGGCGCCCGCGCCAGCATCCTGCGCGGCGAGAAGCTGGACAAGTGGGAGAAGATCCGCCTGCGCCCCGG
CGGCAAGAAGCACTACATGCTGAAGCACCTGGTGTGGGCCAGCCGCGAGCTGGAGGGCTTCGCCCTGAACC
CCGGCCTGCTGGAGACCGCCGAGGGCTGCAAGCAGATCATGAAGCAGCTGCAGCCCGCCCTGCAGACCGGC
ACCGAGGAGCTGCGCAGCCTGTACAACACCGTGGCCACCCTGTACTGCGTGCACGCCGGCATCGAGGTGCG
CGACACCAAGGAGGCCCTGGACAAGATCGAGGAGGAGCAGAACAAGAGCCAGCAGAAGACCCAGCAGGCCA
AGGAGGCCGACGGCAAGGTGAGCCAGAACTACCCCATCGTGCAGAACCTGCAGGGCCAGATGGTGCACCAG
GCCATCAGCCCCCGCACCTGAACGCCTGGGTGAAGGTGATCGAGGAGAAGGCCTTCAGCCCCGAGGTGAT
CCCCATGTTACCGCCCTGAGCGAGGGCGCCACCCCCCAGGACCTGAACACCATGCTGAACACCGTGGGCG
GCCACCAGGCCGCCATGCAGATGCTGAAGGACACCATCAACGAGGAGGCCGCCGAGTGGGACCGCCTGCAC
CCCGTGCAGGCCGGCCCCGTGGCCCCCGGCCAGATGCGCGACCCCCGCGGCAGCGACATCGCCGGCGCCAC
CAGCACCTGCAGGAGCAGATCGCCTGGATGACCAGCAACCCCCCGTGCCCGTGGGCGACATCTACAAGC
GTGGATCATCCTGGGCCTGAACAAGATCGTGCGCATGTACAGCCCCGTGAGCATCCTGGACATCCGCCAG
GGCCCCAAGGAGCCCTTCCGCGACTACGTGGACCGCTTCTTCAAGACCCTGCGCGCCGAGCAGGCCACCCA
GGACGTGAAGAACTGGATGACCGAGACCCTGCTGGTGCAGAACGCCAACCCCGACTGCAAGACCATCCTGC
GCGCCCTGGGCCCCGGCGCCACCCTGGAGGAGATGATGACCGCCTGCCAGGGCGTGGGCGGCCCCGGCCAC
AAGGCCCGCGTGCTGGCCGAGGCATGAGCCAGGCCAACAGCGTGAACATCATGATGCAGAAGAGCAACTT
CAAGGGCCCCCGCGCAACGTGAAGTGCTTCAACTGCGGCAAGGAGGGCCACATCGCCAAGAACTGCCGCG
CCCCCGCAAGAAGGGCTGCTGGAAGTGGCGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGCGCCAG
GCCAACTTCTGGGCAAGATCTGGCCCAGCCACAAGGGCGCCCCGGCAACTTCTGTCAGAACCGCAGCGA
GCCCCGCGCCCCCACCCTGCCCACCGCCCCCCCCCGCCGAGAGCTTCCGCTTCGAGGAGACCACCCCCGCCC
CCAAGCAGGAGCCCAAGGACCGCGAGCCCTACCGCGAGCCCTGACCGCCCTGCGCAGCCTGTTTCGGCAGC
GGCCCCCTGAGCCAGTAA

FIG. 6



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| APPROVED BY DRAFTSMAN | O.G. FIG. | |
| | CLASS | SUBCLASS |

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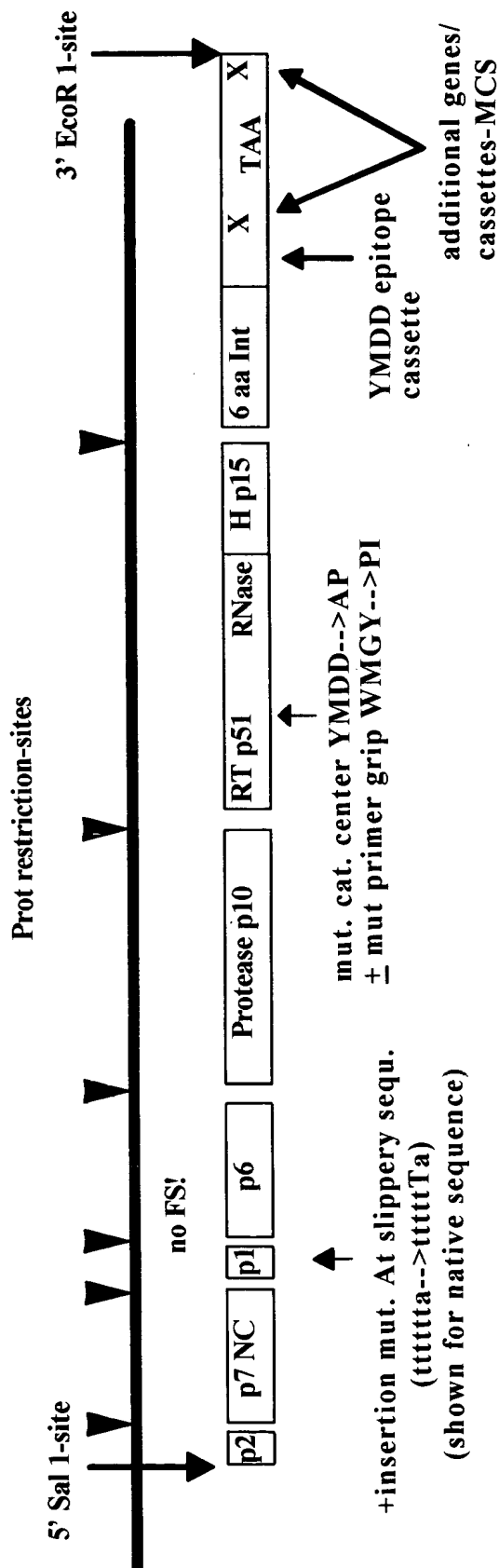


FIG. 7



8/23

PR975(+) (SEQ ID NO:30)

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| APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS |
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GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGAT
GCAGCGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAA
GGAGGGCCACATCGCCCGCAACTGCCGCGCCCCCGCAAGAAGGGGCTGCTGGAAGT
GCGGCAAGGAGGGGCCACCATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTC
CGCGAGGACCTGGCCTTCCCCAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAA
CCGCGCCAACAGCCCCACCAGCCGCGAGCTGCAGGTGCGCGGCGACAACCCCCGCA
GCGAGGCCGGCGCCGAGCGCCAGGGCACCTTGAAGTTCCCCCAGATCACCTGTGGC
AGCGCCCCCTGGTGAGCATCAAGGTGGGCGGCCAGATCAAGGAGGCCCTGCTGGAC
ACCGGCGCCGACGACACCGTGCTGGAGGAGATGAGCCTGCCCGGCAAGTGGAAGCC
CAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGCCAGTACGACCAGATCCT
GATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATCGGCCCCACCCCGT
GAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCTTGAAGTTCCCCAT
CAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGGACGGCCCCAAGG
TGAAGCAGTGGCCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCCATCTGCGAG
GAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCGAGAACCCCTACAACAC
CCCCGTGTTCCGATCAAGAAGAAGGACAGCACCAAGTGCGCAAGCTGGTGGACT
TCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCC
ACCCCGCCGGCCTGAAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGGCGACGCC
TACTTCAGCGTGCCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTACCATCCCC
AGCATCAACAACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGC
TGGAAGGGCAGCCCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTC
CGCGCCCGCAACCCCCGAGATCGTGATCTACCAGTACATGGACGACCTGTACGTGGC
AGCGACCTGGAGATCGGCCAGCACCGCGCCAAGATCGAGGAGCTGCGCAAGCACCT
GCTGCGCTGGGGCTTACCACCCCCGACAAGAAGCACCAAGGAGCCCCCTTCTCT
GTGGATGGGCTACGAGCTGCACCCCGACAAGTGACCGTGACGCCCATCGAGCTGCC
CGAGAAGGAGAGCTGGACCGTGAACGACATCCAGAAGCTGGTGGGCAAGCTGAACT
GGGCCAGCCAGATCTACCCCGGCATCAAGGTGCGCCAGCTGTGCAAGCTGCTGCGCG
GCGCCAAGGCCCTGACCGACATCGTGCCCTGACCGAGGAGGCCGAGCTGGAGCTG
GCCGAGAACC GCGAGATCCTGCGCGAGCCCGTGACGCGCTGTACTACGACCCAG
CAAGGACCTGGTGGCCGAGATCCAGAAGCAGGGCCACGACCAAGTGGACCTACCAGA
TCTACCAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGATGCGCACC
GCCCACACCAACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAGATCGCCATGGA
GAGCATCGTGATCTGGGGCAAGACCCCCAAGTTCCGCTGCCATCCAGAAGGAGAC
CTGGGAGACCTGGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTT
CGTGAACACCCCCCCCCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAGCCATCAT
CGGCGCCGAGACCTTCTACGTGGACGGCGCCGCCAACCGCGAGACCAAGATCGGCA
AGGCCGGCTACGTGACCGACCGGGGCCGCGAGAAGATCGTGAGCCTGACCGAGACC
ACCAACCAGAAGACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCAG
CGAGGTGAACATCGTGACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCAGCC
CGACAAGAGCGAGAGCGAGCTGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGG
AGAAGGTGTACCTGAGCTGGGTGCCCCGCCACAAGGGCATCGGCGGCAACGAGCAG
ATCGACAAGCTGGTGAGCAAGGGCATCCGCAAGGTGCTGTTCTTGACGGCATCGAT
GGCGGCATCGTGATCTACCAGTACATGGACGACCTGTACGTGGGCGAGCGGCGGCCCT
AGGATCGATTAAAAGCTTCCCGGGGCTAGCACCGGTGAATTC

FIG. 8



9/23

PR975YM (SEQ ID NO:31)

GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGAT
GCAGCGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAA
GGAGGGCCACATCGCCCGCAACTGCCGCGCCCCCGCAAGAAGGGCTGCTGGAAGT
GCGGCAAGGAGGGGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTC
CGCGAGGACCTGGCCTTCCCCCAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAA
CCGCGCCAACAGCCCCACCAGCCGCGAGCTGCAGGTGCGCGGCGACAACCCGCGCA
GCGAGGCCGCGCGCCGAGCGCCAGGGCACCTGAACTTCCCCCAGATCACCTGTGGC
AGCGCCCCCTGGTGAGCATCAAGGTGGGCGGCCAGATCAAGGAGGCCCTGTGGAC
ACCGGCGCCGACGACACCGTGCTGGAGGAGATGAGCCTGCCCGGCAAGTGGAAGCC
CAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGCCAGTACGACCAGATCCT
GATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATCGGCCCCACCCCCGT
GAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCTGAACTTCCCCAT
CAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGGACGGCCCCAAGG
TGAAGCAGTGGCCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCCATCTGCGAG
GAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCTACAACAC
CCCCGTGTTCCGCATCAAGAAGAAGGACAGCACCAAGTGCGCAAGCTGGTGGACT
TCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCCC
ACCCGCGCGCCTGAAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGGCGACGCC
TACTTCAGCGTGCCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCC
AGCATCAACAACGAGACCCCCGGCATCCGCTACCAGTACAACGTGCTGCCCCAGGGC
TGGAAGGGCAGCCCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTC
CGCGCCCGCAACCCCGAGATCGTGATCTACCAGGCCCCCTGTACGTGGGCAGCGAC
CTGGAGATCGGCCAGCACCGCGCCAAGATCGAGGAGCTGCGCAAGCACCTGTGCG
CTGGGGCTTCACCACCCCGACAAGAAGCACCAAGAAGGAGCCCCCTTCTGTGGAT
GGGCTACGAGCTGCACCCCGACAAGTGGAACCGTGACGCCATCGAGCTGCCCCGAGA
AGGAGAGCTGGACCGTGAACGACATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCC
AGCCAGATCTACCCCGGCATCAAGGTGCGCCAGCTGTGCAAGCTGCTGCGCGGCGCC
AAGGCCCTGACCGACATCGTGCCCCCTGACCGAGGAGGCCGAGCTGGAGCTGGCCGA
GAACCGCGAGATCCTGCGCGAGCCCGTGACGGCGTGTACTACGACCCAGCAAGG
ACCTGGTGGCCGAGATCCAGAAGCAGGGCCACGACCAAGTGGACCTACCAGATCTAC
CAGGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGATGCGCACCGCCCA
CACCAACGACGTGAAGCAGCTGACCGAGGCCCGTGAGAAGATCGCCATGGAGAGCA
TCGTGATCTGGGGCAAGACCCCAAGTTCCGCCTGCCATCCAGAAGGAGACCTGGG
AGACCTGGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCTGTA
ACACCCCCCTGTTGAAGCTGTGGTACCAGCTGGAGAAGGAGCCCATCATCGGCG
CCGAGACCTTCTACGTGGACGGCGCCGCAACCGCGAGACCAAGATCGGCAAGGCC
GGCTACGTGACCGACCGGGGCGGCGAGAAGATCGTGAGCCTGACCGAGACCACCAA
CCAGAAGACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAGG
TGAACATCGTGACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCAGCCCGACA
AGAGCGAGAGCGAGCTGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAG
GTGTACCTGAGCTGGGTGCCCCGCCACAAGGGCATCGGCGGCAACGAGCAGATCGA
CAAGCTGGTGAGCAAGGGCATCCGCAAGGTGCTGTTCTTGACGGCATCGATGGCG
GCATCGTGATCTACCAGTACATGGACGACCTGTACGTGGGCAGCGGCGGCCCTAGGA
TCGATTAAGCTTCCCGGGGCTAGCACCGGTGAATTC

FIG. 9

| | | |
|-----------------------------|-----------|----------|
| APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS |
| | CLASS | |



10/23

PR975YMWM (SEQ ID NO:32)

| | | |
|-------------|-----------|----------|
| O.G. FIG. | | SUBCLASS |
| CLASS | | |
| APPROVED BY | DRAFTSMAN | |

GTCGACGCCACCATGGCCGAGGCCATGAGCCAGGCCACCAGCGCCAACATCCTGAT
GCAGCGCAGCAACTTCAAGGGCCCCAAGCGCATCATCAAGTGCTTCAACTGCGGCAA
GGAGGGCCACATCGCCCGCAACTGCCGCGCCCCCGCAAGAAGGGCTGCTGGAAGT
GCGGCAAGGAGGGCCACCAGATGAAGGACTGCACCGAGCGCCAGGCCAACTTCTTC
CGCGAGGACCTGGCCTTCCCCAGGGCAAGGCCCGCGAGTTCCCCAGCGAGCAGAA
CCGCGCCAACAGCCCCACCAGCCGCGAGCTGCAGGTGCGCGGCGACAACCCCCGCA
GCGAGGGCCGGCGCCGAGCGCCAGGGCACCTGAACTTCCCCCAGATCACCTGTGGC
AGCGCCCCCTGGTGAGCATCAAGGTGGGCGGCCAGATCAAGGAGGCCCTGCTGGAC
ACCGGCGCCGACGACACCGTGCTGGAGGAGATGAGCCTGCCCGGCAAGTGGAAGCC
CAAGATGATCGGCGGCATCGGCGGCTTCATCAAGGTGCGCCAGTACGACCAGATCCT
GATCGAGATCTGCGGCAAGAAGGCCATCGGCACCGTGCTGATCGGCCCCACCCCCGT
GAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCTGCACCCTGAACTTCCCCAT
CAGCCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGGACGGCCCCAAGG
TGAAGCAGTGCCCCCTGACCGAGGAGAAGATCAAGGCCCTGACCGCCATCTGCGAG
GAGATGGAGAAGGAGGGCAAGATCACCAAGATCGGCCCCGAGAACCCCTACAACAC
CCCCGTGTTTCGCCATCAAGAAGAAGGACAGCACCAAGTGCGCAAGCTGGTGGACT
TCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGGAGGTGCAGCTGGGCATCCCC
ACCCCGCCGGCCTGAAGAAGAAGAAGAGCGTGACCGTGCTGGACGTGGGCGACGCC
TACTTCAGCGTGCCCCCTGGACGAGGACTTCCGCAAGTACACCGCCTTCACCATCCCC
AGCATCAACAACGAGACCCCCGGCATCCGCTACCAAGTACAACGTGCTGCCCCAGGGC
TGGAAGGGCAGCCCCAGCATCTTCCAGAGCAGCATGACCAAGATCCTGGAGCCCTTC
CGCGCCCCGCAACCCCGAGATCGTGATCTACCAGGCCCCCCTGTACGTGGGCGAGCGAC
CTGGAGATCGGCCAGCACCGCGCCAAGATCGAGGAGCTGCGCAAGCACCTGCTGCG
CTGGGGCTTCACCACCCCCGACAAGAAGCACCAAGGAGCCCCCTTCCTGCCCAT
CGAGCTGCACCCCGACAAGTGGAACCGTGCGAGCCATCGAGCTGCCCCGAGAAGGAGA
GCTGGACCGTGAAACGACATCCAGAAGCTGGTGGGCAAGCTGAACTGGGCCAGCCAG
ATCTACCCCGGCATCAAGGTGCGCCAGCTGTGCAAGCTGCTGCGCGGCCGCAAGGCC
CTGACCGACATCGTGCCCCCTGACCGAGGAGGCCGAGCTGGAGCTGGCCGAGAACCG
CGAGATCCTGCGCGAGCCCGTGACCGGCGTGTAACGACCCAGCAAGGACCTGGT
GGCCGAGATCCAGAAGCAGGGCCACGACCAAGTGGAACCTACCAGATCTACCAGGAGC
CCTTCAAGAACCTGAAGACCGGCAAGTACGCCAAGATGCGCACCGCCACACCAAC
GACGTGAAGCAGCTGACCGAGGCCCGTGCAAGAAGATCGCCATGGAGAGCATCGTGAT
CTGGGGCAAGACCCCCAAGTTCCGCTGCCCATCCAGAAGGAGACCTGGGAGACCT
GGTGGACCGACTACTGGCAGGCCACCTGGATCCCCGAGTGGGAGTTCTGTAACACCC
CCCCCTGGTGAAGCTGTGGTACCAGCTGGAGAAGGAGCCCATCATCGGCGCCGAG
ACCTTCTACGTGGACGGCGCCGCCAACCAGCGAGACCAAGATCGGCAAGGCCGGCTA
CGTGACCGACCGGGGGCCGGCAGAAGATCGTGAGCCTGACCGAGACCAACCAAGAG
AGACCGAGCTGCAGGCCATCCAGCTGGCCCTGCAGGACAGCGGCAGCGAGGTGAAC
ATCGTGACCGACAGCCAGTACGCCCTGGGCATCATCCAGGCCAGCCGACAAGAG
CGAGAGCGAGCTGGTGAACCAGATCATCGAGCAGCTGATCAAGAAGGAGAAGGTGT
ACCTGAGCTGGGTGCCCGCCACAAGGGCATCGGCGGCAACGAGCAGATCGACAAG
CTGGTGAGCAAGGGCATCCGCAAGGTGCTGTTCTGGACGGCATCGATGGCGGCATC
GTGATCTACCAGTACATGGACGACCTGTACGTGGGCAGCGGCGGCCCTAGGATCGAT
TAAAAGCTTCCCGGGGCTAGCACCGGTGAATTC

FIG. 10



11/23

8_5_ZA (SEQ ID NO:33)

1 TGGAAGGGTT AATTTACTCC AAGAAAAGGC AAGAAATCCT TGATTTGTGG GTCTATCACA
61 CACAAGGCTT CTTCCCTGAT TGGCAAAACT ACACACCGGG GCCAGGGGTC AGATATCCAC
121 TGACCTTTGG ATGGTGCTAC AAGCTAGTGC CAGTTGACCC AGGGGAGGTG GAAGAGGCCA
181 ACGGAGGAGA AGACAACGTG TTGCTACACC CTATGAGCCA ACATGGAGCA GAGGATGAAG
241 ATAGAGAAAGT ATTAAAGTGG AAGTTTGACA GCCTCCTAGC ACGCAGACAC ATGGCCCGCG
301 AGCTACATCC GGAGTATTAC AAAGACTGCT GACACAGAAG GGACTTTCCG CCTGGGACTT
361 TCCACTGGGG CGTTCGCGGA GGTGTGGTCT GGGCGGGACT TGGGAGTGGT CAACCCTCAG
421 ATGCTGCATA TAAGCAGCTG CTTTTCGCCT GTACTGGGTC TCTCTCGGTA GACCAGATCT
481 GAGCCTGGGA GCCCTCTGGC TATCTAGGGA ACCCACTGCT TAAGCCTCAA TAAAGCTTGC
541 CTTGAGTGCT TTAAGTAGTG TGTGCCCATC TGTGTGTGA CTCTGGTAAC TAGAGATCCC
601 TCAGACCCTT TGTGGTAGTG TGGAAAATCT CTAGCAGTGG CGCCCGAACA GGGACCAGAA
661 AGTGAAAGTG AGACCAGAGG AGATCTCTCG ACGCAGGACT CGGCTTGCTG AAGTGCACAC
721 GGCAAGAGGC GAGAGGGGCG GCTGGTGAGT ACGCCAATTT TACTTGACTA GCGGAGGCTA
781 GAAGGAGAGA GATGGGTGCG AGAGCGTCAA TATTAAGCGG CGGAAAATTA GATAAATGGG
841 AAAGAATTAG GTTAAGGCCA GGGGAAAGA AACATTATAT GTTAAACAT CTAGTATGGG
901 CAAGCAGGGA GCTGGAAAGA TTTGCACTTA ACCCTGGCCT GTTAGAAACA TCAGAAGGCT
961 GTAAACAAAT AATAAAACAG CTACAACCAG CTCTTCAGAC AGGAACAGAG GAACTTAGAT
1021 CATTATTCAA CACAGTAGCA ACTCTCTATT GTGTACATAA AGGGATAGAG GTACGAGACA
1081 CCAAGGAAGC CTTAGACAAG ATAGAGGAAG AACAAAACAA ATGTCAGCAA AAAGCACAAC
1141 AGGCAAAAGC AGCTGACGAA AAGGTCAGTC AAAATTATCC TATAGTACAG AATGCCCAAG
1201 GGCAAATGGT ACACCAAGCT ATATCACCTA GAACATTGAA TGCATGGATA AAAGTAATAG
1261 AGGAAAAGGC TTCAATCCA GAGGAAATAC CCATGTTTAC AGCATTATCA GAAGGAGCCA
1321 CCCCACAAGA TTAAACACA ATGTTAAATA CAGTGGGGGG ACATCAAGCA GCCATGCAAA
1381 TGTTAAAAGA TACCATCAAT GAGGAGGCTG CAGAATGGGA TAGGACACAT CCAGTACATG
1441 CAGGGCCTGT TGCACCAGGC CAGATGAGAG AACCAAGGGG AAGTGACATA CCAGGACTA
1501 CTAGTACCCT TCAGGAACAA ATAGCATGGA TGACAAGTAA TCCACCTATT CCAGTAGAAG
1561 ACATCTATAA AAGATGGATA ATTCTGGGGT TAAATAAAAT AGTAAGAATG TATAGCCCTG
1621 TTAGCATTTT GGACATAAAA CAAGGGCCAA AAGAACCCTT TAGAGACTAT GTAGACCGGT
1681 TCTTTAAAAC CTTAAGAGCT GAACAAGCTA CACAAGATGT AAAGAATTGG ATGACAGACA
1741 CCTTGTTGGT CAAAATGCG AACCCAGATT GTAAGACCAT TTTAAGAGCA TTAGGACCAG
1801 GGGCCTCATT AGAAGAAATG ATGACAGCAT GTCAGGGAGT GGGAGGACCT AGCCATAAAG
1861 CAAGAGTGTT GGCTGAGGCA ATGAGCCAAG CAAACAGTAA CATACTAGTG CAGAGAAGCA
1921 ATTTTAAAGG CTCTAACAGA ATTATTAAAT GTTTCAACTG TGGCAAAGTA GGGCACATAG
1981 CCAGAAATTG CAGGGCCCCCT AGGAAAAAGG GCTGTTGGAA ATGTGGACAG GAAGGACACC
2041 AAATGAAAGA CTGTACTGAG AGGCAGGCTA ATTTTTTAGG GAAAATTTGG CCTTCCCA
2101 AGGGGAGGCC AGGGAATTTT CTCCAGAACA GACCAGAGCC AACAGCCCCA CCAGCAGAAC
2161 CAACAGCCCC ACCAGCAGAG AGCTTCAGGT TCGAGGAGAC AACCCTCGTG CCGAGGAAGG
2221 AGAAAGAGAG GGAACCTTTA ACTTCCCTCA AATCACTCTT TGGCAGCGAC CCCTTGCTC
2281 AATAAAAGTA GAGGGCCAGA TAAAGGAGGC TCTCTTAGAC ACAGGAGCAG ATGATACAGT
2341 ATTAGAAGAA ATAGATTGTC CAGGGAAATG GAAACCAAAA ATGATAGGGG GAATTGGAGG
2401 TTTTATCAAA GTAAGACAGT ATGATCAAAT ACTTATAGAA ATTTGTGGAA AAAAGGCTAT
2461 AGGTACAGTA TTAGTAGGGC CTACACCACT CAACATAATT GGAAGAAATC TGTAACTCA
2521 GCTTGGATGC AACTAAATT TTCCAATTAG TCCTATTGAA ACTGTACCAG TAAAATTAAA
2581 ACCAGGAATG GATGGCCCAA AGGTCAAACA ATGGCCATTG ACAGAAGAAA AAATAAAAGC
2641 ATTAACAGCA ATTTGTGAGG AAATGGAGAA GGAAGGAAAA ATTACAAAAA TTGGGCCTGA
2701 TAATCCATAT AACACTCCAG TATTTGCCAT AAAAAAGAAG GACAGTACTA AGTGGAGAAA
2761 ATTAGTAGAT TTCAGGGAAC TCAATAAAG AACTCAAGAC TTTTGGGAAG TTCAATTAGG
2821 AATACCACAC CCAGCAGGAT TAAAAAGAA AAAATCAGTG ACAGTGCTAG ATGTGGGGGA
2881 TGCATATTTT TCAGTTCCTT TAGATGAAAG CTTCAGGAAA TATACTGCAT TCACCATACC

FIG. 11A

| | | |
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| APPROVED | O.G. FIG. | |
| | CLASS | SUBCLASS |
| BY | DRAFTSMAN | |

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| | | |
|-----------------------------|-----------|----------|
| APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS |
| | CLASS | |

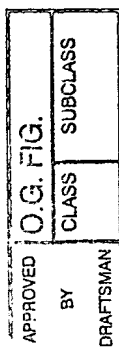
| | | | | | | |
|------|-------------|-------------|-------------|------------|------------|-------------|
| 2941 | TAGTATAAAC | AATGAAACAC | CAGGGATTAG | ATATCAATAT | AATGTGCTGC | CACAGGGATG |
| 3001 | GAAAGGATCA | CCAGCAATAT | TCCAGAGTAG | CATGACAAAA | ATCTTAGAGC | CCTTCAGAGC |
| 3061 | AAAAAATCCA | GACATAGTTA | TCTATCAATA | TATGGATGAC | TTGTATGTAG | GATCTGACTT |
| 3121 | AGAAATAGGG | CAACATAGAG | CAAAAATAGA | AGAGTTAAGG | GAACATTTAT | TGAAATGGGG |
| 3181 | ATTTACAACA | CCAGACAAGA | AACATCAAAA | AGAACCCCCA | TTTCTTTGGA | TGGGGTATGA |
| 3241 | ACTCCATCCT | GACAAATGGA | CAGTACAACC | TATACTGCTG | CCAGAAAAGG | ATAGTTGGAC |
| 3301 | TGTCAATGAT | ATACAGAAAGT | TAGTGGGAAA | ATTAACTGG | GCAAGTCAGA | TTTACCCAGG |
| 3361 | GATTAAAGTA | AGGCAACTCT | GTAAACTCCT | CAGGGGGGCC | AAAGCACTAA | CAGACATAGT |
| 3421 | ACCACTAACT | GAAGAAGCAG | AATTAGAATT | GGCAGAGAAC | AGGGAAATTT | TAAGAGAACC |
| 3481 | AGTACATGGA | GTATATTATG | ATCCATCAAA | AGACTTGATA | GCTGAAATAC | AGAAACAGGG |
| 3541 | GCATGAACAA | TGGACATATC | AAATTTATCA | AGAACCATTT | AAAAATCTGA | AAACAGGGAA |
| 3601 | GTATGCAAAA | ATGAGGACTA | CCCACACTAA | TGATGTAAAA | CAGTTAACAG | AGGCAGTGCA |
| 3661 | AAAAATAGCC | ATGGAAAGCA | TAGTAATATG | GGGAAAGACT | CCTAAATTTA | GACTACCCAT |
| 3721 | CCAAAAAGAA | ACATGGGAGA | CATGGTGGAC | AGACTATTGG | CAAGCCACCT | GGATCCCTGA |
| 3781 | GTGGGAGTTT | GTAAATACCC | CTCCCCTAGT | AAAATTATGG | TACCAACTAG | AAAAAGATCC |
| 3841 | CATAGCAGGA | GTAGAAACTT | TCTATGTAGA | TGGAGCAACT | AATAGGGAAG | CTAAATAGG |
| 3901 | AAAAGCAGGG | TATGTTACTG | ACAGAGGAAG | GCAGAAAATT | GTTACTCTAA | CTAACACAAC |
| 3961 | AAATCAGAAG | ACTGAGTTAC | AAGCAATTCA | GCTAGCTCTG | CAGGATTCAG | GATCAGAAGT |
| 4021 | AAACATAGTA | ACAGACTCAC | AGTATGCATT | AGGAATCATT | CAAGCACAAC | CAGATAAGAG |
| 4081 | TGACTCAGAG | ATATTTAACC | AAATAATAGA | ACAGTTAATA | AACAAGGAAA | GAATCTACCT |
| 4141 | GTCATGGGTA | CCAGCACATA | AAGGAATTGG | GGGAAATGAA | CAAGTAGATA | AATTAGTAAG |
| 4201 | TAAGGGAATT | AGGAAAGTGT | TGTTTCTAGA | TGGAATAGAT | AAAGCTCAAG | AAGAGCATGA |
| 4261 | AAGGTACCAC | AGCAATTGGA | GAGCAATGGC | TAATGAGTTT | AATCTGCCAC | CCATAGTAGC |
| 4321 | AAAAGAAATA | GTAGCTAGCT | GTGATAAATG | TCAGCTAAAA | GGGGAAGCCA | TACATGGACA |
| 4381 | AGTCGACTGT | AGTCCAGGGA | TATGGCAATT | AGATTGTACC | CATTTAGAGG | GAAAAATCAT |
| 4441 | CCTGGTAGCA | GTCCATGTAG | CTAGTGGCTA | CATGGAAGCA | GAGGTTATCC | CAGCAGAAAC |
| 4501 | AGGACAAGAA | ACAGCATATT | TTATATTAAA | ATTAGCAGGA | AGATGGCCAG | TCAAAGTAAT |
| 4561 | ACATACAGAC | AATGGCAGTA | ATTTTACCAG | TACTGCAGTT | AAGGCAGCCT | GTTGGTGGGC |
| 4621 | AGGTATCCAA | CAGGAATTTG | GAATTCCCTA | CAATCCCCAA | AGTCAGGGAG | TGGTAGAATC |
| 4681 | CATGAATAAA | GAATTAAAGA | AAATAATAGG | ACAAGTAAGA | GATCAAGCTG | AGCACCTTAA |
| 4741 | GACAGCAGTA | CAAATGGCAG | TATTCATTCA | CAATTTTAAA | AGAAAAGGGG | GAATTGGGGG |
| 4801 | GTACAGTGCA | GGGGAAGAA | TAATAGACAT | AATAGCAACA | GACATACAAA | CTAAAGAATT |
| 4861 | ACAAAAACAA | ATTATAAGAA | TTCAAAATTT | TCGGGTTTAT | TACAGAGACA | GCAGAGACCC |
| 4921 | TATTTGGAAA | GGACCAGCCG | AACACTCTG | GAAAGGTGAA | GGGGTAGTAG | TAATAGAAGA |
| 4981 | TAAAGGTGAC | ATAAAGGTAG | TACCAAGGAG | GAAAGCAAAA | ATCATTAGAG | ATTATGGAAA |
| 5041 | ACAGATGGCA | GGTGCTGATT | GTGTGGCAGG | TGGACAGGAT | GAAGATTAGA | GCATGGAATA |
| 5101 | GTTTAGTAAA | GCACCATATG | TATATATCAA | GGAGAGCTAG | TGGATGGGTC | TACAGACATC |
| 5161 | ATTTTGAAAG | CAGACATCCA | AAAGTAAGTT | CAGAAGTACA | TATCCCATTA | GGGGATGCTA |
| 5221 | GATTAGTAAT | AAAAACATAT | TGGGGTTTGC | AGACAGGAGA | AAGAGATTGG | CATTTGGGTC |
| 5281 | ATGGAGTCTC | CATAGAATGG | AGACTGAGAG | AATACAGCAC | ACAAGTAGAC | CCTGACCTGG |
| 5341 | CAGACCAGCT | AATTCACATG | CATTATTTTG | ATTGTTTTAC | AGAATCTGCC | ATAAGACAAG |
| 5401 | CCATATTAGG | ACACATAGTT | TTTCCTAGGT | GTGACTATCA | AGCAGGACAT | AAGAAGGTAG |
| 5461 | GATCTCTGCA | ATACTTGGCA | CTGACAGCAT | TGATAAAACC | AAAAAAGAGA | AAGCCACCTC |
| 5521 | TGCCTAGTGT | TAGAAAATTA | GTAGAGGATA | GATGGAACGA | CCCCCAGAAG | ACCAGGGGCC |
| 5581 | GCAGAGGGAA | CCATACAATG | AATGGACACT | AGAGATTCTA | GAAGAACTCA | AGCAGGAAGC |
| 5641 | TGTCAGACAC | TTTCCTAGAC | CATGGCTCCA | TAGCTTAGGA | CAATATATCT | ATGAAACCTA |
| 5701 | TGGGGATACT | TGGACGGGAG | TTGAAGCTAT | AATAAGAGTA | CTGCAACAAC | TACTGTTTCAT |
| 5761 | TCATTTTCAGA | ATTGGATGCC | AACATAGCAG | AATAGGCATC | TTGCGACAGA | GAAGAGCAAG |
| 5821 | AAATGGAGCC | AGTAGATCCT | AAACTAAAGC | CCTGGAACCA | TCCAGGAAGC | CAACCTAAAA |
| 5881 | CAGCTTGTA | TAATTGCTTT | TGCAAAACACT | GTAGCTATCA | TTGTCTAGTT | TGCTTTCAGA |

FIG. 11B

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| | | | | | | |
|------|-------------|------------|------------|------------|------------|-------------|
| 5941 | CAAAAGGTTT | AGGCATTTCC | TATGGCAGGA | AGAAGCGGAG | ACAGCGACGA | AGCGCTCCTC |
| 6001 | CAAGTGGTGA | AGATCATCAA | AATCCTCTAT | CAAAGCAGTA | AGTACACATA | GATAGATGTAA |
| 6061 | TGGTAAGTTT | AAGTTTATTT | AAAGGAGTAG | ATTATAGATT | AGGAGTAGGA | GCATTGATAG |
| 6121 | TAGCACTAAT | CATAGCAATA | ATAGTGTGGA | CCATAGCATA | TATAGAATAT | AGGAAATTGG |
| 6181 | TAAGACAAAA | GAAAATAGAC | TGGTTAATTA | AAAGAATTAG | GGAAAGAGCA | GAAGACAGTG |
| 6241 | GCAATGAGAG | TGATGGGGAC | ACAGAAGAAT | TGTCAACAAT | GGTGGATATG | GGGCATCTTA |
| 6301 | GGCTTCTGGA | TGCTAATGAT | TTGTAACACG | GAGGACTTGT | GGGTCACAGT | CTACTATGGG |
| 6361 | GTACCTGTGT | GGAGAGAAGC | AAAACTACT | CTATTCTGTG | CATCAGATGC | TAAAGCATAT |
| 6421 | GAGACAGAAG | TGCATAATGT | CTGGGCTACA | CATGCTTGTG | TACCCACAGA | CCCCAACCCA |
| 6481 | CAAGAAATAG | TTTTGGGAAA | TGTAACAGAA | AATTTTAATA | TGTGGAAAAA | TAACATGGCA |
| 6541 | GATCAGATGC | ATGAGGATAT | AATCAGTTTA | TGGGATCAAA | GCCTAAAGCC | ATGTGTAAAG |
| 6601 | TTGACCCAC | TCTGTGTCAC | TTTAACTGT | ACAGATACAA | ATGTTACAGG | TAATAGAACT |
| 6661 | GTTACAGGTA | ATACAAATGA | TACCAATATT | GCAAATGCTA | CATATAAGTA | TGAAGAAATG |
| 6721 | AAAAATTGCT | CTTCAATGC | AACCACAGAA | TTAAGAGATA | AGAAACATAA | AGAGTATGCA |
| 6781 | CTCTTTTATA | AACTTGATAT | AGTACCACTT | AATGAAAATA | GTAACAACTT | TACATATAGA |
| 6841 | TTAATAAATT | GCAATACCTC | AACCATAACA | CAAGCCTGTC | CAAAGGTCTC | TTTTGACCCG |
| 6901 | ATTCTATAC | ATTACTGTGC | TCCAGCTGAT | TATGCGATTG | TAAAGTGTA | TAATAAGACA |
| 6961 | TTCAATGGGA | CAGGACCATG | TTATAATGTC | AGCACAGTAC | AATGTACACA | TGGAATTAAG |
| 7021 | CCAGTGGTAT | CAACTCAACT | ACTGTAAAT | GGTAGTCTAG | CAGAAGAAGG | GATAATAATT |
| 7081 | AGATCTGAAA | ATTTGACAGA | GAATACCAAA | ACAATAATAG | TACATCTTAA | TGAATCTGTA |
| 7141 | GAGATTAATT | GTACAAGGCC | CAACAATAAT | ACAAGGAAAA | GTGTAAGGAT | AGGACCAGGA |
| 7201 | CAAGCATTCT | ATGCAACAAA | TGACGTAATA | GGAAACATAA | GACAAGCACA | TTGTAACATT |
| 7261 | AGTACAGATA | GATGGAATAA | AACTTTACAA | CAGGTAATGA | AAAAATTAGG | AGAGCATTTT |
| 7321 | CCTAATAAAA | CAATAAAATT | TGAACCACAT | GCAGGAGGGG | ATCTAGAAAT | TACAATGCAT |
| 7381 | AGCTTTAATT | GTAGAGGAGA | ATTTTTCTAT | TGCAATACAT | CAAACCTGTT | TAATAGTACA |
| 7441 | TACTACCCTA | AGAATGGTAC | ATACAAATAC | AATGGTAATT | CAAGCTTACC | CATCACACTC |
| 7501 | CAATGCAAAA | TAAAACAAAT | TGTACGCATG | TGGCAAGGGG | TAGGACAAGC | AATGTATGCC |
| 7561 | CCTCCCATTG | CAGGAAACAT | AACATGTAGA | TCAAACATCA | CAGGAATACT | ATTGACACGT |
| 7621 | GATGGGGGAT | TTAACAACAC | AAACAACGAC | ACAGAGGAGA | CATTCAGACC | TGGAGGAGGA |
| 7681 | GATATGAGGG | ATAACTGGAG | AAGTGAATTA | TATAAATATA | AAGTGGTAGA | AATTAGCCCA |
| 7741 | TTGGGAATAG | CACCCACTAA | GGCAAAAAGA | AGAGTGGTGC | AGAGAAAAAA | AAGAGCAGTG |
| 7801 | GGAAATAGGAG | CTGTGTTTCT | TGGGTTCTTG | GGAGCAGCAG | GAAGCACTAT | GGGCGCAGCG |
| 7861 | TCAATAACGC | TGACGGTACA | GGCCAGACAA | CTGTTGTCTG | GTATAGTGCA | ACAGCAAAGC |
| 7921 | AATTTGCTGA | AGGCTATAGA | GGCGCAACAG | CATATGTTGC | AACTCACAGT | CTGGGGCATT |
| 7981 | AAGCAGCTCC | AGGCGAGAGT | CCTGGCTATA | GAAAGATACC | TAAAGGATCA | ACAGCTCCTA |
| 8041 | GGGATTTGGG | GCTGCTCTGG | AAGACTCATC | TGCACCACTG | CTGTGCCCTG | GAAGTCCAGT |
| 8101 | TGGAGTAATA | AATCTGAAGC | AGATATTTGG | GATAACATGA | CTTGGATGCA | GTGGGATAGA |
| 8161 | GAAATTAATA | ATTACACAGA | AACAATATTC | AGGTTGCTTG | AAGACTCGCA | AAACCAGCAG |
| 8221 | GAAAAGAATG | AAAAAGATTT | ATTAGAATTG | GACAAGTGGA | ATAATCTGTG | GAATTGGTTT |
| 8281 | GACATATCAA | ACTGGCTGTG | GTATATAAAA | ATATTCATAA | TGATAGTAGG | AGGCTTGATA |
| 8341 | GGTTTAAGAA | TAATTTTTGC | TGTGCTCTCT | ATAGTGAATA | GAGTTAGGCA | GGGATACTCA |
| 8401 | CCTTTGTGCT | TTCAGACCTT | TACCCCAAGC | CCGAGGGGAC | TCGACAGGCT | CGGAGGAATC |
| 8461 | GAAGAAGAAG | GTGGAGAGCA | AGACAGAGAC | AGATCCATAC | GATTGGTGTG | CGGATTCTTG |
| 8521 | TCGCTTGCCT | GGGACGATCT | GCGGAGCCTG | TGCCTCTTCA | GCTACCACCG | CTTGAGAGAC |
| 8581 | TTCATATTAA | TTGCAGTGAG | GGCAGTGGAA | CTTCTGGGAC | ACAGCAGTCT | CAGGGGACTA |
| 8641 | CAGAGGGGGT | GGGAGATCCT | TAAGTATCTG | GGAAGTCTTG | TGCAGTATTG | GGGTCTAGAG |
| 8701 | CTAAAAAGA | GTGCTATTAG | TCCGCTTGAT | ACCATAGCAA | TAGCAGTAGC | TGAAGGAACA |
| 8761 | GATAGGATTA | TAGAATTGGT | ACAAAGAATT | TGTAGAGCTA | TCCTCAACAT | ACCTAGGAGA |
| 8821 | ATAAGACAGG | GCTTTGAAGC | AGCTTTGCTA | TAAATGGGA | GGCAAGTGGT | CAAAACGACG |
| 8881 | CATAGTTGGA | TGGCCTGCAG | TAAGAGAAAG | AATGAGAAGA | ACTGAGCCAG | CAGCAGAGGG |
| 8941 | AGTAGGAGCA | GCGTCTCAAG | ACTTAGATAG | ACATGGGGCA | CTTACAAGCA | GCAACACACC |

FIG. 11C



14/23

| | | |
|-----------------------------|-----------|----------|
| APPROVED BY DRAFTSMAN | O.G. FIG. | |
| | CLASS | SUBCLASS |

9001 TGCTACTAAT GAAGCTTGTG CCTGGCTGCA AGCACAAGAG GAGGACGGAG ATGTAGGCTT
9061 TCCAGTCAGA CCTCAGGTAC CTTTAAGACC AATGACTTAT AAGAGTGCAG TAGATCTCAG
9121 CTTCTTTTAA AAAGAAAAGG GGGGACTGGA AGGGTTAATT TACTCTAGGA AAAGGCAAGA
9181 AATCCTTGAT TTGTGGGTCT ATAACACACA AGGCTTCTTC CCTGATTGGC AAAACTACAC
9241 ATCGGGGCCA GGGGTCCGAT TCCCCTGAC CTTTGGATGG TGCTTCAAGC TAGTACCAGT
9301 TGACCCAAGG GAGGTGAAAG AGGCCAATGA AGGAGAAGAC AACTGTTTGC TACACCCTAT
9361 GAGCCAACAT GGAGCAGAGG ATGAAGATAG AGAAGTATTA AAGTGGAAGT TTGACAGCCT
9421 TCTAGCACAC AGACACATGG CCCGCGAGCT ACATCCGGAG TATTACAAAG ACTGCTGACA
9481 CAGAAGGGAC TTTCCGCCTG GGACTTTCCA CTGGGGCGTT CCGGGAGGTG TGGTCTGGGC
9541 GGGACTTGGG AGTGGTCACC CTCAGATGCT GCATATAAGC AGCTGCTTTT CGCTTGTA
9601 GGGTCTCTCT CGGTAGACCA GATCTGAGCC TGGGAGCTCT CTGGCTATCT AGGGAACCCA
9661 CTGCTTAGGC CTCAATAAAG CTTGCCTTGA GTGCTCTAAG TAGTGTGTGC CCATCTGTTG
9721 TGTGACTCTG GTAAC TAGAG ATCCCTCAGA CCCTTTGTGG TAGTGTGGAA AATCTCTAGC
9781 A

FIG. 11D



15/23

| | | |
|-----------------------------|-----------|----------|
| APPROVED BY DRAFTSMAN | O.G. FIG. | |
| | CLASS | SUBCLASS |

SEQ ID NO:34

GCTGAGGCAATGAGCCAAGCAACCAGCGCAAACATACTGATGCAGAGAAGCAATTT
CAAAGGCCCTAAAAGAATTATTAAATGTTTCACTGTGGCAAGGAAGGGCACATAG
CTAGAAATTGTAGGGCCCCTAGGAAAAAAGGCTGTTGGAAATGTGGAAAGGAAGGA
CACCAAATGAAAGACTGTACTGAGAGGCAGGCTAA

FIG. 12

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975Pol wt until 6aa Int: (SEQ ID NO:35)

TTTTTTAGGGAAGATTTGGCCTTCCCACAAGGGAAGGCCAGGGAATTCCTTCAGAA
CAGAACAGAGCCAACAGCCCCACCAGCAGAGAGCTTCAAGTTCGAGGAGACAACCC
CCGCTCCGAAGCAGGAGCCGAAAGACAGGGAACCCCTTAATTTCCCTCAAATCACTCT
TTGGCAGCGACCCCTTGTCTCAATAAAAGTAGGGGGTCAAATAAAGGAGGCTCTCTT
AGACACAGGAGCTGATGATACAGTATTAGAAGAAATGAGTTTGCCAGGAAAATGGA
AACCAAAAATGATAGGAGGAATTGGAGGTTTTATCAAAGTAAGACAGTATGATCAA
ATACTTATAGAAATTTGTGGAAAAAAGGCTATAGGTACAGTATTAATAGGACCTACA
CCTGTCAACATAATTGGAAGGAATATGTTGACTCAGCTTGGATGCACACTAAATTTT
CCAATTAGTCCCATTGAACTGTGCCAGTAAAATTAAGGCCAGGAATGGATGGCCCA
AAGGTTAAACAATGGCCATTGACAGAAGAGAAAATAAAGCATTAAACAGCAATTTG
TGAAGAAATGGAGAAAGAAGGAAAAATTACAAAAATTGGGCCTGAAAATCCATATA
ACACTCCAGTATTTGCCATAAAAAAGAAGGACAGTACTAAGTGGAGAAAGTTAGTA
GATTTTCAGGGAACCTTAATAAAAGAACTCAAGACTTTTGGGAAGTTCAATTAGGAATA
CCACACCCAGCAGGGTTAAAAAAGAAAAAATCAGTGACAGTACTGGATGTGGGGGA
TGCATATTTTTTCAGTTCTTTAGATGAGGACTTCAGGAAATATACTGCATTACCATA
CCTAGTATAAACAATGAAACACCAGGGATTAGATATCAATATAATGTGCTTCCACAG
GGATGGAAAGGATCACCATCAATATTCCAGAGTAGCATGACAAAAATCTTAGAGCC
CTTTAGAGCAAGAAATCCAGAAATAGTCATCTATCAATATATGGATGACTTGTATGT
AGGATCTGACTTAGAAATAGGGCAACATAGAGCAAAAAATAGAGGAGTTAAGAAAAC
ATCTGTAAAGGTGGGGATTTACCACACCGGACAAGAAACATCAGAAAGAACCCCCA
TTTCTTTGGATGGGGTATGAACTCCATCCTGACAAATGGACAGTACAGCCTATAGAG
TTGCCAGAAAAGGAAAGCTGGACTGTCAATGATATACAGAAGTTAGTGGGAAAATT
AAATTGGGCCAGTCAGATTTACCCAGGAATTAAGTAAGGCAACTTTGTAAACTCCT
TAGGGGGGGCCAAAGCACTAACAGATATAGTACCACTAACTGAAGAAGCAGAATTAG
AATTGGCAGAGAACAGGGAAATTCTAAGAGAACCAGTACATGGAGTATATTATGAC
CCATCAAAAGACTTGGTAGCTGAAATACAGAAACAGGGGCATGACCAATGGACATA
TCAAATTTACCAAGAACCATTCAAAAACCTGAAAACAGGGAAGTATGCAAAAATGA
GGACTGCCCACACTAATGATGTAAAAACAGTTAACAGAGGCAGTGCAAAAAATAGCT
ATGGAAAGCATAGTAATATGGGGAAAGACTCCTAAATTTAGACTACCCATCCAAAA
AGAAACATGGGAGACATGGTGGACAGACTATTGGCAAGCCACCTGGATTCTGAGT
GGGAGTTTGTAAATACCCCTCCCTTAGTAAAATTATGGTACCAGCTAGAGAAAGAAC
CCATAATAGGAGCAGAACTTTCTATGTAGATGGAGCAGCTAATAGGGAAACTAAA
ATAGGAAAAGCAGGGTATGTTACTGACAGAGGAAGGCAGAAAATTGTTTCTCTAAC
AGAAACAACAAATCAGAAGACTGAATTACAAGCAATTCAGCTAGCTTTGCAAGATTC
AGGATCAGAAGTAAACATAGTAACAGACTCACAGTATGCATTAGGAATCATTCAAG
CACACCAGATAAGAGTGAATCAGAGTTAGTCAACCAAATAATAGAACAATTAATA
AAAAAGGAAAAGGTCTACCTGTCTATGGGTACCAGCACATAAAGGAATTGGAGGAAA
TGAACAAATAGATAAATTAGTAAGTAAGGGAATCAGGAAAGTGCTGTTTCTAGATG
GAATAGAT

FIG. 13

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| APPROVED BY DRAFTSMAN | O.G. FIG. | |
| | CLASS | SUBCLASS |





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| APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS |
| | CLASS | |

SEQ ID NO:36

GGCGGCATCGTGATCTACCAGTACATGGACGACCTGTACGTGGGCAGCGGCG
GC

FIG. 14



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| O.G. FIG. | | SUBCLASS |
| CLASS | | |
| APPROVED BY | DRAFTSMAN | |

SEQ ID NO: 37

GGIVTYQYMDDLTVGSGG

FIG. 15



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12_5/1ZA (SEQ ID NO:45)

TGGAAGGGTTAATTTACTCCAGGAAAAGGCAAGAGATCCTTGATTTATGGGTCTATC
ACACACAAGGCTACTTCCCTGATTGGCAAACACTACACACCGGGACCAGGGGTCAGA
TATCCACTGACCTTTGGATGGTGCTTCAAGCTAGTGCCAGTTGACCCAAGGGAAGTA
GAAGAGGCCAACGGAGGAGAAGACAACCTGTTTGCTACACCCTATGAGCCAGTATGG
AATGGATGATGAACACAAAGAAGTGTTACAGTGGAAGTTTGACAGCAGCCTAGCAC
GCAGACACCTGGCCCGCGAGCTACATCCGATTATTACAAAGACTGCTGACACAGA
AGGGACTTTCCGCCTGGGACTTTCCACTGGGGCGTTCCAGGGGGAGTGGTCTGGGCG
GACTGGGAGTGGCCAGCCCTCAGATGCTGCATATAAGCAGCGGCTTTTCGCCTGTA
CTGGGTCTCTCTAGGTAGACCAGATCCGAGCCTGGGAGCTCTCTGTCTATCTGGGGA
ACCCACTGCTTAGGCCTCAATAAAGCTTGCCTTGAGTGCTCTAAGTAGTGTGTGCC
ATCTGTTGTGTGACTCTGGTAACTCTGGTAACTAGAGATCCCTCAGACCTTTGTGGT
AGTGTGGAAAATCTCTAGCAGTGGCGCCCGAACAGGGACTTGAAAGCGAAAGTGAG
ACCAGAGAAGATCTCTCGACGCAGGACTCGGCTTGCTGAAGTGCACTCGGCAAGAG
GCGAGGGGGGCGACTGGTGAGTACGCCAAAATTTTTTTGACTAGCGGAGGCTAGA
AGGAGAGAGATGGGTGCGAGAGCGTCAATATTAAGAGGGGGGAAAATTAGACAAAT
GGGAAAAAATTAGGTTACGGCCAGGGGGGAGAAAACACTATATGCTAAAACACCTA
GTATGGGCAAGCAGAGAGCTGGAAAGATTTGCAGTTAACCCTGGCCTTTTAGAGAC
ATCAGACGGATGTAGAC AAATAATAAAACAGCTACAACCAGCTCTTCAGA
CAGGAACAGAGGAAATTAGATCATTATTTAACACAGTAGCAACTCTCTATTGTGTAC
ATAAAGGGATAGATGTACGAGACACCAAGGAAGCCTTAGACAAGATAGAGGAGGA
ACAAAACAAATGTCAGCAAAAAACACAGCAGGCGGAAGCGGCTGACAAAAGGTC
AGTCAAAATTATCCTATAGTGCAGAACCTCCAAGGGCAAATGGTACACCAGGCCAT
ATCACCTAGAACCTTGAATGCATGGGTAAAAGTAATAGAGGAGAAGGCTTTTAGCC
CAGAGGTAATACCCATGTTTACAGCATTATCAGAAGGAGCCACCCACAAGATTTA
AACACCATGTAAATACAGTGGGGGGACATCAAGCAGCCATGCAAATGTAAAAG
ATACCATCAATGAGGAGGCTGCAGAATGGGATAGGTTACATCCAGTACATGCAGGG
CCTGTTGCACCAGGCCAGATGAGAGAACCAAGGGGAAGTGACATAGCAGGAACCTA
CTAGTACCCTTCAAGAACAAATAGCATGGATGACAAGTAACCCACCTATCCCAGTA
GGGGACATCTATAAAAGGTGGATAATTCTGGGGTTAAATAAAATAGTAAGAATGTA
CAGCCCTGTCAGCATTTTAGACATAAAACAAGGACCAAGGAACCCTTTAGAGACT
ATGTAGACCGGTTCTTCAAACTTTAAGAGCTGAACAATCTACACAAGAGGTAAAA
AATTGGATGACAGACACCTTGTTAGTCCAAAATGCGAACCCAGATTGTAAGACCATT
TTAAGAGCATTAGGACCAGGGGCTTCATTAGAAGAAATGATGACAGCATGTCAGGG
AGTGGGAGGACCTAGCCACAAAGCAAGAGTTTTGGCTGAGGCAATGAGCCAAGCAA
ACAATACAAGTGTAATGATACAGAAAAGCAATTTTAAAGGCCCTAGAAGAGCTGTT
AAATGTTTCAACTGTGGCAGGGAAGGGCACATAGCCAGGAATTGCAGGGCCCTAG
GAAAAGGGGCTGTTGGAAATGTGGAAAGGAAGGACACCAATGAAAGACTGTACT
GAGAGGCAGGCTAATTTTTTAGGGAAAATTTGGCCTTCCCACAAGGGGAGGCCAGG
GAATTTCTTCAGAGCAGACCAGAGCCAACAGCCCCACCACTAGAACCAACAGCCC
CACCAGCAGAGAGCTTCAAGTTCAAGGAGACTCCGAAGCAGGAGCCGAAAGACAG
GGAACCTTTAACTTCCCTCAAATCACTCTTTGGCAGCGACCCCTTGTCTCAATAAAA

FIG. 16A

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| APPROVED BY | O.G. FIG. | |
| | CLASS | SUBCLASS |
| DRAFTSMAN | | |



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| APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS |
| | CLASS | |

GTAGCGGGCCAAACAAAGGAGGCTCTTTTAGATACAGGAGCAGATGATACAGTACT
AGAAGAAATAAACTTGCCAGGAAAATGGAAACCAAAAATGATAGGAGGAATTGGA
GGTTTTATCAAAGTAAGACAGTATGATCAAATACTTATAGAAATTTGTGGAAAAAGG
GCTATAGGTACAGTATTAGTAGGACCTACACCTGTCAACATAATTGGAAGAAATCTG
TTGACTCAGCTTGATGCACACTAAATTTTCCAATTAGCCCCATTGAACTGTACCA
GTAAAATTAAGCCAGGAATGGATGGCCCAAAGGTTAAACAATGGCCATTGACAGA
AGAAAAAATAAAGCATTAAACAGAAATTTGTGAGGAAATGGAGAAGGAAGGAAAA
ATTACAAAAATTGGGCCTGAAAATCCATATAACACTCCAGTATTTGCCATAAAGAAG
AAGGACAGTACAAAGTGGAGAAAATTAGTAGATTTTCAGGGAAGTCAATAAAGAAG
TCAAGACTTTTGGGAAGTCCAATTAGGAATACCACACCCAGCAGGGTTAAAAAAGA
AAAAATCAGTGACAGTACTGGATGTGGGAGATGCATATTTTTCAGTCCCTTTAGATG
AGAGCTTCAGAAAAATATACTGCATTCACCATACTAGTATAAACAATGAAACACCA
GGGATTAGATATCAATATAATGTTCTTCCACAGGGATGGAAAGGATCACCAGCAA
TATTCAGAGTAGCATGACAAGAATCTTAGAGCCCTTTAGAACACAAAACCCAGAA
GTAGTTATCTATCAATATATGGATGACTTATATGTAGGATCTGACTTAGAAATAGGG
CAACATAGAGCAAAAATAGAGGAGTTAAGAGGACACCTATTGAAATGGGGATTTAC
CACACCAGACAAGAAACATCAGAAAGAACCCCCATTTCTTTGGATGGGGTATGAAC
TCCATCCTGACAAATGGACAGTACAGCCTATACAGCTGCCAGAAAAGGAGAGCTGG
ACTGTCAATGATATACAGAAGTTAGTGGGAAAGTTAACTGGGCAAGTCAGATTTA
CCCAGGGATTAAAGTAAGGCAACTGTGTAACTCCTTAGGGGAGCCAAAGCACTAA
CAGACATAGTGCCACTGACTGAAGAAGCAGAATTAGAATTGGCTGAGAACAGGGA
AATTCTAAAAGAACCAGTACATGGAGTATATTATGACCCATCAAAAGATTTAATAG
CTGAAATACAGAAACAGGGGAATGACCAATGGACATATCAAATTTACCAAGAACC
ATTTAAAAATCTGAGAACAGGAAAAGTATGCAAAAATGAGGACTGCCACACTAATG
ATGTGAAACAGTTAGCAGAGGCAGTGCAAAAGATAACCCAGGAAAGCATAGTAATA
TGGGGAAAAAATCCTAAATTTAGACTACCCATCCCAAAAGAAACATGGGAGACATG
GTGGTCAGACTATTGGCAAGCCACCTGGATTCTGAGTGGGAGTTTGTCAATACCCC
TCCCCTAGTAAAATTGTGGTACCAGCTGGAAAAAGAACCCATAGTAGGGGCAGAAA
CTTTCTATGTAGATGGAGCAGCCAATAGGGAACTAAAATAGGAAAAGCAGGGTAT
GTCCTGACAAAGGAAGGCAGAAAGTTGTTTCCTTCACTGAAACAACAAATCAGAA
GACTGAATTACAAGCAATTCAGCTAGCTTTGCAGGATTCAGGGCCAGAAGTAAACA
TAGTAACAGACTCACAGTATGCATTAGGAATCATTCAAGCACAACCAGATAAGAGT
GAATCAGAATTAGTCAGTCAAATAATAGAACAGTTGATAAAAAAGGAAAAAGTCTA
CCTATCATGGGTACCAGCACATAAAGGAATTGGAGGAAATGAACAAGTAGACAAAT
TAGTAAGTAGTGGAATCAGAAAAGTACTGTTTCTAGATGGAATAGATAAAGCTCAA
GAAGAGCATGAAAAATATCACAGCAATTGGAGAGCAATGGCTAGTGAGTTTAATCT
GCCACCCATAGTAGCAAAGGAAATAGTAGCCAGCTGTGATAAATGTCAGCTAAAAG
GGGAAGCCATGCATGGACAAGTCGACTGTAGTCCAGGAATATGGCAATTAGACTGT
ACACATTTAGAAGGAAAAATCATCCTAGTAGCAGTCCATGTAGCCAGTGGCTACAT
GGAAGCAGAGGTTATCCCAGCAGAAACAGGACAAGAAACAGCATACTTTATACTAA
AATTAGCAGGAAGATGGCCAGTCAAAGTAATACATACAGATAATGGCAGTAATTC
ACCAGTACCGCAGTTAAGGCAGCCTGTTGGTGGGCAGATATCCAACGGGAATTTGG
AATTCCCTACAATCCCCAAAGTCAAGGAGTAGTAGAATCCATGAATAAAGAATTAA

FIG. 16B

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| APPROVED BY DRAFTSMAN | O.G. FIG. | SUBCLASS |
| | CLASS | |

AGAAAATCATAGGGCAAGTAAGAGATCAAGCTGAGCACCTTAAGACAGCAGTACAA
ATGGCAGTATTCATTACAAATTTTAAAAAGAAAAGGGGGGATTGGGGGGTACAGTGC
AGGGGAGAGAATAATAGACATAATAGCATCAGACATACAAACCTAAAGAATTACAAA
AACAAATTATAAAAATTCAAAATTTTCGGGTTTATTACAGAGACAGCAGAGACCCTA
TTTGGAAGAGGACCAGCCAACTACTCTGGAAAGGTGAAGGGGCAGTAGTAATACAA
GATAATAGTGATATAAAGGTAGTACCAAGAAGGAAAGCAAAAATCATTAAAGGACTA
TGGAAAACAGATGGCAGGTGCTGATTGTGTGGCAGGTAGACAGGATGAAGATTAGA
ACATGGCACAGTTTAGTAAAGCACCATATGTATGTTTCGAGGAGAGCTGATGGATGG
TTCTACAGACATCATTATGAAAGCAGACACCCAAAAGTAAGTTCAGAAGTACACAT
CCCATTAGGAGATGCCAGGTAGTAATAAAAACATATTGGGGTCTGCAGACAGGAG
AAAGAGCTTGGCATTGTTGGGTACGGAGTCTCCATAGAATGGAGATTGAGAAGATAT
AGCACACAAGTAGACCCTGACCTGACAGACCAACTAATTCATATGCATTATTTTGAT
TGTTTTGCAGAACTCTGCCATAAAGGAAAGCCATACTAGGACAGATAGTTAGCCCTAA
GTGTGACTATCAAGCAGGACATAACAAGGTAGGATCTCTACAATACTTGGCACTGA
CAGCATTGATAAAACCAAAAAAGATAAAGCCACCTCTGCCTAGTGTTAGGAAATTA
GTAGAGGATAGATGGAACAAGCCCCAGAAGACCAGGGGCCGAGAGGGAACCATA
CAATGAATGGACACTAGAGCTTTTAGAAGAACTCAAGCAGGAAGCTGTCAGACACT
TTCCTAGACCATGGCTCCATAACTTAGGACAACATATCTATGAAACCTATGGAGATA
CTTGACAGGAGTTGAAGCAATAATAAGAATCCTGCAACAATTACTGTTTATTCATT
TCAGGATTGGGTGCCATCATAGCAGAATAGGCATTTTTCGACAGAGAAGAGCAAGA
AATGGAGCCAATAGATCCTAACCTAGAACCCTGGAACCATCCAGGAAGTCAGCCTA
AACTGCTTGTAAATGGGTGTTACTGTAAACGTTGCAGCTATCATTGTCTAGTTTGCTT
TCAGAAAAAAGGCTTAGGCATTTACTATGGCAGGAAGAAGCGGAGACAGCGACGAA
GCGCTCCTCCAAGCAATAAAGATCATCAAGATCCTCTACCAAAGCAGTAAGTACCG
AATAGTATATGTAATGTTAGATTTAACTGCAAGAATAGATTCTAGATTAGGAATAGG
AGCATTGATAGTAGCACTAATCATAGCAATAATAGTGTGGACCATAGTATATATAG
AATATAGGAAATTGGTAAGGCAAAGGAAAAATAGACTGGTTAGTTAAAAGGATTAGG
GAAAGAGCAGAAGACAGTGGCAATGAGAGCGAGGGGGGATACTGAAGAATTATCGA
CACTGGTGGATATGGGGCATCTTAGGCTTTTGGATGCTAATGATGTGTAATGTGAA
GGGCTTGTGGGTCACAGTCTACTACGGGGTACCTGTGGGGAGAGAAGCAAAAACCT
ACTCTATTTTGTGCATCAGATGCTAAAGCATATGAGAAAGAAGTGCATAATGTCTG
GGCTACACATGCCTGTGTACCCACAGACCCCAACCCACAAGAAGTGATTTTGGGC
AATGTAACAGAAAATTTTAACATGTGGAAAAATGACATGGTGGATCAGATGCAGG
AAGATATAATCAGTTTATGGGATCAAAGCCTTAAGCCATGTGTAAAAITGACCCCA
CTCTGTGTCACTTTAACTGTACAAATGCAACTGTAACTACAATAATACCTCTAAA
GACATGAAAAATTGCTCTTTCTATGTAACCACAGAATTAAGAGATAAAGAAAAAGAA
AGAAAATGCACTTTTTTATAGACTTGATATAGTACCACTTAATAATAGGAAGAATGG
GAATATTAACAACCTATAGATTAATAAATTGTAATACCTCAGCCATAACACAAGCCTG
TCCAAAAGTCTCGTTTGACCCAATTCCTATACATTATTGTGCTCCAGCTGGTTATGCG
CCTCTAAAATGTAATAATAAGAAATTCAATGGAATAGGACCATGCGATAATGTCAG
CACAGTACAATGTACACATGGAATTAAGCCAGTGGTATCAACTCAATTACTGTAA
TGGTAGCCTAGCAGAAGAAGAGATAATAATTAGATCTGAAAATCTGACAAACAATG
TCAAAACAATAATAGTACATCTTAATGAATCTATAGAGATTAAATGTACAAGACC

FIG. 16C



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| APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS |
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TGGCAATAATACAAGAAAGAGTGTGAGAATAGGACCAGGACAAGCATTCTATGCA
ACAGGAGACATAATAGGAGATATAAGACAAGCACATTGTAACATTAGTAAAAATGA
ATGGAATACAACCTTTACAAAGGGTAAGTCAAAAATTACAAGAACTCTTCCCTAATA
GTACAGGGATAAAATTTGCACCACACTCAGGAGGGGACCTAGAAATTACTACACAT
AGCTTTAATTGTGGAGGAGAATTTTTCTATTGCAATACAACAGACCTGTTTAATAGT
ACATACAGTAATGGTACATGCACTAATGGTACATGCATGTCTAATAATACAGAGCG
CATCACACTCCAATGCAGAATAAAACAAATTATAAACATGTGGCAGGAGGTAGGAC
GAGCAATGTATGCCCCTCCCATTGCAGGAAACATAACATGTAGATCAAATATTACA
GGACTACTATTAACACGTGATGGAGGAGATAATAATACTGAAACAGAGACATTCAG
ACCTGGAGGAGGAGACATGAGGGACAATTGGAGAAGTGAATTATATAAATACAAG
GTGGTAGAAATTAAACCATTAGGAGTAGCACCCACTGCTGCAAAAAGGAGAGTGGT
GGAGAGAGAAAAAAGAGCAGTAGGAATAGGAGCTGTGTTCCCTTGGGTTCTTGGGAG
CAGCAGGAAGCACTATGGGCGCAGCATCAATAACGCTGACGGTACAGGCCAGACAA
TTATTGTCTGGTATAGTGCAACAGCAAAGTAATTTGCTGAGGGCTATAGAGGCGCAA
CAGCATATGTTGCAACTCACGGTCTGGGGCATTAAAGCAGCTCCAGGCAAGAGTCCTG
GCTATAGAGAGATACTACAGGATCAACAGCTCCTAGGACTGTGGGGCTGCTCTGG
AAAACCTCATCTGCACCACTAATGTGCTTTGGAACCTCTAGTTGGAGTAATAAACTCA
AAGTGATATTTGGGATAACATGACCTGGATGCAGTGGGATAGGGAAATTAGTAATT
ACACAAACACAATATACAGGTTGCTTGAAGACTCGCAAAGCCAGCAGGAAAGAAA
TGAAAAAGATTTACTAGCATTGGACAGGTGGAACAATCTGTGGAATTGGTTTAGCAT
AACAAATTGGCTGTGGTATATAAAAAATATTCATAATGATAGTAGGAGGCTTGATAG
GTTTAAGAATAATTTTTGCTGTGCTCTCTCTAGTAAATAGAGTTAGGCAGGGATACT
CACCTTGTCAATTGCAGACCCTTATCCCAAACCCGAGGGGACCCGACAGGCTCGGA
GGAATCGAAGAAGAAGGTGGAGAGCAAGACAGCAGCAGATCCATTTCGATTAGTGA
GCGGATTCTTGACACTTGCTGGGACGACCTACGAAGCCTGTGCCTCTTCTGCTACC
ACCGATTGAGAGACTTCATATTAATTGTAGTGAGAGCAGTGGAACCTTCTGGGACAC
AGTAGTCTCAGGGGACTGCAGAGGGGGTGGGGAACCTTAAGTATTTGGGGAGTCT
TGTGCAATATTGGGGTCTAGAGTTAAAAAAGAGTGCTATTAATCTGCTTGATACTAT
AGCAATAGCAGTAGCTGAAGGAACAGATAGGATTCTAGAATTCATACAAAACCTTT
GTAGAGGTATCCGCAACGTACCTAGAAGAATAAGACAGGGCTTCGAAGCAGCTTTG
CAATAAAATGGGGGGCAAGTGGTCAAAAAGCAGTATAATTGGATGGCCTGAAGTAA
GAGAAAGAATCAGACGAACTAGGTCAGCAGCAGAGGGAGTAGGATCAGCGTCTCA
AGACTTAGAGAAACATGGGGCACTTACAACCAGCAACACAGCCCACAACAATGCTG
CTTGCGCCTGGCTGGAAGCGCAAGAGGAGGAAGGAGAAAGTAGGCTTTCCAGTCAGA
CCTCAGGTACCTTTAAGACCAATGACTTATAAAGCAGCAATAGATCTCAGCTTCTTT
TTAAAAGAAAAGGGGGGACTGGAAGGGTTAATTTACTCCAAGAAAAGGCAAGAGAT
CCTTGATTTGTGGGTTTATAACACACAAGGCTTCTTCCCTGATTGGCAAAACTACAC
ACCGGGACCAGGGGTCAGATTTCCACTGACCTTTGGATGGTACTTCAAGCTAGAGCC
AGTCGATCCAAGGGAAGTAGAAGAGGGCCAATGAAGGAGAAAACAAGTGTACTAC
ACCCTATGAGCCAGCATGGAATGGAGGATGAAGACAGAGAAGTATTAAGATGGAAG
TTTGACAGTACGCTAGCACGCAGACACATGGCCCGCGAGCTACATCCGGAGTATTAC
AAAGACTGCTGACACAGAAGGGACTTTCCGCTGGGACTTTCCACTGGGGCGTTCCAG
GAGGTGTGGTCTGGGCGGGACAGGGGAGTGGTCAGCCCTGAGATGCTGCATATAAG
CAGCTGCTTTTCGCCTGTACTGGGTCTCTCTAGGTAGACCAGATCTGAGCCCGGGAG

FIG. 16D



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| | | |
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| APPROVED BY DRAFTSMAN | O.G. FIG. | |
| | CLASS | SUBCLASS |

CTCTCTGGCTATCTAGGGAACCCACTGCTTAAGCCTCAATAAAGCTTGCCTTGAGTG
CCTTGAGTAGTGTGTGCCCGTCTGTTGTGTGACTCTGGTAACTAGAGATCCCTCAGA
CCACTTGTGGTAGTGTGGAAAATCTCTAGCA

FIG. 16E